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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/675,641	09/30/2003	Andrew J. Wanie	845.001	6077

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BOYLE FREDRICKSON NEWHOLM STEIN & GRATZ, S.C.  
250 E. WISCONSIN AVENUE  
SUITE 1030  
MILWAUKEE, WI 53202

EXAMINER
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STONE, JENNIFER A

ART UNIT	PAPER NUMBER
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2636

DATE MAILED: 02/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/675,641

Applicant(s)

WANIE, ANDREW J.

Examiner

Jennifer A Stone

Art Unit

2636

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 September 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date March 15, 2004.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

### ***Drawings***

1. The drawings are objected to under 37 CFR 1.83(a) because they fail to provide a clear illustration of the invention as described in the specification. Examiner cannot determine the numbers that match the appropriate components in Figures 8, 9, 10, 11, 12, 13, 15, 16, 18, and 19 (the drawings are too dark). Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 112***

2. Claim 14 recites the limitation "the board" in lines 1 and 2. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-3 and 5-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Issachar (US 6,218,949).

For claim 1, Issachar discloses a device for monitoring the level of a substance in a container (col 3, lns 28-31), the system comprising: (a) a rod having a lower end positionable within the container in engagement with an upper surface of the substance in the container (col 13, lns 22-24; Fig. 1A, item 36), an upper end positionable outside of the container (col 13, lns 31 and 32) and a central, rigid member connecting the lower end and the upper end (col 3, lns 43-45) and slidably positioned with regard to the container (col 13, lns 28-33); and (b) a sensor positionable on the container (col 8, lns 1 and 2) and capable of initiating an alarm signal in response to the upper end of the rod engaging the sensor (col 4, lns 43-46; col 13, lns 8-16 and 28-37; Fig. 1A and 1B, item 24; Fig. 1B, items 30 and 31).

For claim 2, the central member of the rod is formed from a number of segments (col 5, Ins 30-35; col 14, Ins 21-29; Fig. 7A1, item 35', 36' and 36").

For claim 3, the segments are releasably secured to one another (col 14, Ins 34-38; Fig. 7A1, 7A2, 7B1, and 7B2).

For claim 5, the rod extends through an opening in the sensor (col 13, Ins 9, 10, 28, and 29).

For claim 6, the sensor includes at least one of: a switch engageable by the upper end of the rod (Fig. 1B, item 30), and a battery (Fig. 1B, item 28; col 13, Ins 9-13).

For claim 7, Issachar discloses the sensor to include a base member positionable on the container (col 13, Ins 16-18; Fig. 1B, item 33, Fig. 1A, item 23) and an alarm mechanism spaced from the base member (Fig. 1B, item 31, 26, and 26'), wherein the base member transmits an operating signal to alarm mechanism when engaged by the upper end of the rod (col 13, Ins 28-37). The base member, consisting of the cross-hatched area, includes the alarm mechanism.

5. Claim 22 is rejected under 35 U.S.C. 102(b) as being anticipated by Rak (US 5,239,285).

Rak discloses a device for sensing a level of a substance in a container (col 1, Ins 5-7), comprising: (a) a predetermined level of a substance (col 2, Ins 33-35); (b) a sensor for detecting when the substance reaches the predetermined level (col 4 Ins 7-10 and 30-32; Fig. 1, items 16 and 20); (c) an alarm remotely triggered by the sensor when the predetermined level is reached (col 2, Ins 36-38; col 3, Ins 45-52).

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 8-13, 16, 18, and 21 are rejected under 35 U.S.C. 102(e) as being anticipated by Hafer (US 2002/0178808).

For claim 8, Hafer discloses a device for monitoring the level of a substance through a wall of a container, the device comprising a first sensing member positionable on the container adjacent a lower end of the container (paragraph 0002, Ins 1 and 2; parag 0019, Ins 7-14; Fig. 1, item 11), the first sensing member including a first housing securable to the container (Fig. 1, item 11), a first detecting mechanism positioned within the housing (the probe is considered to be within the housing and penetrates walls of the container), an alarm mechanism operably connected to the first detecting mechanism (parag. 0014; parag 0048, Ins 3-8; Fig. 2, item 40), and a first power supply operably connected to the first detecting mechanism and the alarm mechanism (parag 0021, Ins 1-7).

For claim 9, Hafer discloses the first detecting mechanism is at least one of an induction-based detecting mechanism and a capacitance-based detecting mechanism (parag 0019, Ins 7-10; parag 0021, Ins 1-4).

For claim 10, the first detecting mechanism includes a stored lower limit capacitance value that is compared with an actual capacitance value sensed by the first detecting mechanism (parag 0027, Ins 2-9; Fig. 2, item 51).

For claim 11, the first sensing member includes a calibration mechanism operably connected to the first detecting mechanism and used to obtain the lower limit capacitance value (parag 0024; Fig. 2, item 50).

For claim 13, Hafer discloses a second sensing member positionable on the container adjacent an upper end of the container (paragraph 0002, Ins 1 and 2; parag 0019, Ins 7-14; Fig. 1, item 10), the second sensing member including a second housing and a second detecting mechanism.

For claim 16, the first detecting mechanism is calibrated to detect at least one of: a solid material within the container, and an aqueous material within the container (parag 0019, Ins 1 and 2).

For claim 18, the alarm mechanism emits at least one of: an audible alarm, and a visible alarm (parag 0048, Ins 3-6).

For claim 21, the sensor transmits a signal (via the processor) to trigger the alarm (parag 0048, Ins 1-6).

### ***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Issachar (US 6,218,949).

Issachar discloses a rod containing a number of segments. Even though Issachar does not disclose a recess at one end and a locking member opposite the recess, it would have been obvious to one of ordinary skill in the art, at the time the invention was made that the telescoping rod include a locking mechanism so that the rod can remain stable while adjusted at various lengths (col 14, Ins 34-43).

10. Claims 12 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hafer (US 2002/0178808) and further in view of Luzzader (US 6,014,076).

For claim 12, Hafer discloses sensing members, but does not disclose a timer. Luzzader, on the other hand, discloses a sensing member that includes a timer operably connected to a detecting mechanism and used to selectively operate the first detecting mechanism at predetermined intervals (col 5, Ins 1 and 67; col 6, Ins 1-14; Fig. 3, items 114, 170, and 174). It would have been obvious to include a timer within a sensor housing so that the life of the sensor battery is extended as a user selectively operates the sensor.

For claim 15, Hafer discloses a power source, but does not include a battery. However, Luzzader discloses a battery operatively connected to a detecting mechanism (Fig. 3, items 114 and 166). It would have been obvious to include a battery as a source of power storage to ensure the sensor functions properly.



11. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hafer (US 2002/0178808) and further in view of Hall (US 4,169,543).

Hafer discloses a second capacitive plate (Fig. 1, item 10 and 11), but does not include a ground plate. Hall, however, discloses first and second capacitive plates that include ground plates (col 5, lns 20-39; Fig. 2, items 10' and 10"; Fig. 4, items 110 and 96). It would have been obvious to wire a ground plate with a capacitive plate so that the capacitive plate is protected against fault current.

12. Claims 17 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hafer (US 2002/0178808) and further in view of Rak (US 5,239,285).

For claim 20, Hafer discloses an alarm, but the location of the alarm is not disclosed. Rak discloses an alarm to monitor the water level of a container, where the alarm is located remotely from the sensor (col 2, lns 33-38; col 3, lns 45-52). Even though the structure of Rak and Hafer vary slightly, both inventions monitor the level of a substance in a container, where when the substance reaches a predetermined level, an alarm is emitted. It would have been obvious to include an alarm located remotely from the sensor for user convenience and to alert an appropriate monitoring facility.

For claim 17, Hafer does not disclose an alarm mechanism spaced from the first housing. However, Rak discloses an alarm mechanism spaced from a first housing to receive a signal from a detecting mechanism to operate the alarm mechanism (col 2, lns 33-38; col 3, lns 45-52; col 4, lns 7-10). The telephone or radio is considered alarm mechanisms. It would have been obvious to include an alarm spaced from the (sensor) to alert an appropriate monitoring facility.

13. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hafer (US 2002/0178808) and further in view of Kasik et al. (US 2004/0046672).

Hafer does not disclose an electromagnetic wave-based detecting mechanism. However, Kasik discloses this feature for detecting liquid level of a container (parag 0009; parag 0010, Ins 1-5). It would have been obvious to include an electromagnetic wave-based detecting mechanism to facilitate data communication without the hindrance of wires.

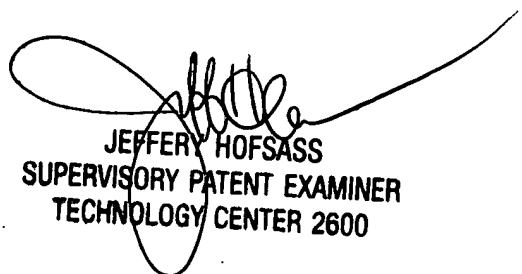
### ***Conclusion***

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer A. Stone whose telephone number is (571) 272.2976. The examiner can normally be reached 8:00-4:30, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Jeffery Hofsass can be reached at (571) 272.2981. The fax phone number for the organization where this application or proceeding is assigned is (703) 872.9306 for regular and after final communications.

Any inquiry of a general nature of relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272.2600.

Jennifer Stone  
February 17, 2005

  
JEFFERY HOFSSASS  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600